TRANSACTIONS

OF THE

CHICAGO SURGICAL SOCIETY.

Stated Meeting, January 5, 1906.

The President, Dr. D. A. K. Steele, in the Chair.

POPLITEAL ANEURISM, RUPTURED BY MANIPULATION.

Dr. Charles Adams reported the case of a man, aged 58 years, who was seen in consultation with Dr. M. C. Bragdon, August 7, 1905.

He has been the subject of indigestion and headaches most of his life and early in July last put himself in the hands of an osteopath for treatment. The lack of judgment displayed by this operator was excelled in degree only by the vigor of his treatment. This worthy's governing idea seems to have been violent over-extension of the extremities, one particular fancy being to extend the lower limbs on the pelvis and then bend the legs over the body toward the patient's shoulders. He expressed himself as particularly pleased when he could "hear 'em crack." For a man of nearly sixty, with atheromatous arteries all over his body, the treatment was, to say the least, strenuous. After two weeks of this manipulation the patient became lame, too lame to get about, so, in spite of the appearance of a swelling behind and below the knee, the treatment was continued at the home of the patient until he could no longer endure the torture and finally sent for his physician, who, recognizing the surgical character of the case, called a consultation.

Dr. Adams found the patient suffering from severe pain in the right leg; the calf was distended to one and two-thirds the

size of its fellow, the skin heightened in color and shiny; the pulse was 110, the temperature 102° F. At this time, pulsation could be felt in the dorsalis pedis. At his next visit, he found entire absence of pulsation below the knee, the foot cold, and there could be no doubt that rupture of the popliteal had produced the condition present. Exploration of the swelling gave vent to a large quantity of fluid blood and clots in various stages of organization which had filled the popliteal space and a cavity beneath the posterior muscles of the leg. Amputation was performed through the middle third of the femur. The blood-vessels were so soft that direct ligature to them was impossible. Hæmostasis was effected by inclusion of neighboring tissues in the ligatures. The wound healed practically by first intention, but for ten days the man was septic probably from autointoxication, as the condition cleared up after repeated catharsis and no other cause could be discovered.

Examination of the amputated limb showed a true aneurism of the popliteal artery, ruptured in its posterior surface, forming a false aneurism which again ruptured and resulted in the condition found at operation.

HYDRONEPHROSIS AND APPENDICITIS.

Dr. Charles Adams described the case of a man, 60 years of age, who in 1876 began to suffer with attacks of dull heavy pain appearing, with gradual onset, at about the junction of the eleventh rib and the right scapular line, extending forward in the direction of the navel and lasting three to four hours at a time. These attacks came on about once in three months during a period of two years. They were somewhat relieved by sweats and hot drinks, and apparently accompanied by no urinary or bowel trouble. There has been no pain in the abdomen since the cessation of the acute attacks, in 1878. A tumor, a long ovoid mass, occupying the right side of the abdomen from the costal margin nearly to Poupart's ligament, was first noticed in 1900 and has undergone a gradual increase in size since that time.

A diagnosis of hydronephrosis was made and confirmed by a cystoscopic examination, made by Dr. W. N. Senn, which showed that no urine entered the bladder through the right ureter.

After due preparation the patient was operated on at the

Evanston Hospital. A vertical incision was made, over the prominent portion of the tumor through the outer border of the right rectus muscle, the two layers of peritoneum identified and cut through.

The tumor was enucleated from its bed without difficulty. The renal artery, comparatively small, and one large vein (⅜ inch) were ligated, as was also the ureter; the latter in its free portion, however, was impervious. The tumor, which was about ten inches long by six inches in transverse diameter, consisted of an exceedingly thin-walled cyst containing eleven pints of perfectly clear fluid. The ureter was stretched across the anterior surface of the tumor, adherent and occluded.

The retroperitoneal space was dried out, and there being no hemorrhage the intestines were allowed to fall into place, and search was made for the appendix vermiformis. It was found buried in a mass of adhesions some of which were quite ancient. The appendix itself was exceedingly soft and ruptured during the attempt to separate it from the surrounding adhesions, giving issue to a small mass of inspissated pus. The parts concerned were carefully cleansed and the abdominal wound closed by suture in layers. The condition of the appendix was remarkable in view of the fact that at no time while the patient had been under observation had there been any pain or disturbance of temperature or pulse, nor could he remember having had any pain in the abdomen since the attacks noted above as ceasing in 1878. Recovery smooth and complete.

HYDRONEPHROSIS.

Dr. Charles Adams also reported the case of a woman, 34 years of age, who fourteen years previous to operation had a severe attack of pain in the right loin and groin following a long walk. Other attacks followed, and during the attack a tumor was noticed in the right side of abdomen. Her then physician made a diagnosis of intermittent hydronephrosis from flexion of the ureter due to mobility of the kidney. The kidney was successfully kept in place by bandage for about four years, after which time two severe attacks of pain occurred and the tumor became permanent.

In November, 1897, the tumor was aspirated or tapped and leakage occurring into the peritoneal cavity, Dr. Fenger saw her and opened the abdomen, cleansed its cavity and sutured the dilated kidney to the anterior abominal wall. The constant discharge from the fistula remaining after the operation was a source of so much annoyance to the patient that Dr. Adams removed the kidney by abdominal incision in February, 1898. No difficulty was met in the operation except in separating some adhesions to the colon. The patient made a smooth recovery. In this case only the upper half of the kidney was involved in the dilatation, the secreting structure of the lower half it would seem had been made inoperative after a certain degree of tension had been reached and resumed its function after the tension had been relieved by the establishment of the fistula.

NEPHROLITHOTOMY—CYSTONEPHROSIS.

Dr. Charles Adams further reported the case of a woman, aged 31, who ten years previous to coming under his care in 1900, just after concluding her course in college, began to suffer from constant lassitude, headaches and extreme constipation, feeling generally "run down." While sea-bathing she was taken with a severe chill, was carried home on a litter and confined to bed for five months with what was called "a low type of peritonitis." After getting up from this attack she was treated for almost every form of abdominal inflammation for a period of eight or nine years, going about the country and suffering many things at the hands of many physicians. During most of this time a painful lump was apparent in the right side of the abdomen, which was generally pronounced to be an enlarged gall bladder. She suffered from constant backache and headache, was in bed with excruciating pain for three days every month, her urine was purulent and foul smelling, occasionally bloody; she slept badly, and was extremely constipated.

Examination of the abdomen showed a freely movable, enlarged and exquisitely tender right kidney; through the rectum could be felt a fixed and slightly anteflexed uterus; the ovaries very tender to touch. The right ovary was enlarged, presumably cystic; the condition of the left was uncertain.

August 30, 1900, the abdomen was opened in the median line between the umbilicus and symphysis by a three-inch incision, the uterus tubes and ovaries were bound together and covered by dense tough adhesions. After much trouble the right ovary was uncovered and found to be cystic throughout and was therefore removed. The left ovary was much smaller than normal and exceedingly hard. On account of the ten years' history of continual pain and the beforehand expressed wish of the patient, it was also removed. (During the subsequent course of the case none of the symptoms present seemed to be due to the laparotomy.) After closing the abdominal wound the patient was placed on the left side and the right kidney exposed by Simon's incision at the edge of the erector spinæ. The organ was somewhat thinned out by distention and a calculus was plainly palpable through its substance. The kidney was incised through its convexity and the calculus extracted entire. The ureter was catheterized to prove its patency and the kidney fastened to the muscular structures by stitches of catgut passed through its capsule. Tubular drainage was employed, the tube being passed into the pelvis of the kidney and secured by a suture to the wound margin.

Before the operation the patient's temperature was rarely below 99° F. and generally about 100° F. The pulse ranged from 72 to 90, varying with the amount of pain experienced. In the night following operation the temperature rose to 102.8 and the pulse to 160, and from this time on the pulse was much higher proportionately than the temperature, probably due to the effect of operation shock on the cardiac muscle. The patient was intensely hyperæsthetic, the stomach exceedingly irritable, the most careful and gentle dressings of the lumbar wound frequently would produce attacks of nausea and vomiting lasting for hours. During the ten days following the operation the patient's temperature gradually decreased to about 99° F. The pulse remained weak and from 20 to 30 beats higher than what would correspond to the temperature. Feeding, salt solution enemata, and cardiac stimulation were thoroughly kept up during this period.

On the twentieth day after operation the patient had severe pain in the operated kidney, the urine from the bladder, which had been purulent, suddenly became clear, while through the small

opening left in the lumbar wound there was only slight discharge. A large sterilized catheter was introduced into the renal pelvis and relieved an obstruction of the ureter, irrigating with boric solution. This procedure was followed by a severe chill, and fever which lasted five days, the temperature reaching 104.4° F. During the following eight days it gradually became apparent that little or no urine was passing through the right ureter. Dr. Adams reopened the lumbar wound and made a digital exploration of the pelvis of the kidney. A yielding elastic diaphragm seemed to intervene between the examining finger and the ureteral opening. The greater portion of the renal pelvis was entirely shut off from the ureter by adhesion of the thinned-out septum, above the lowest calyx, over the ureter.

The kidney was sufficiently bisected to expose this diaphragm in which a cruciform incision was made; this being followed by only slight bleeding the flaps were clipped away, leaving a clear opening of an inch across. Hemorrhage from the renal parenchyma, although at first free, was checked by sterile gauze packing, which was left in position for 36 hours. The patient suffered considerably from shock, but rallied well after two or three days and since has enjoyed good health so far as the renal function is concerned.

GONORRHŒAL PYELITIS,—NEPHROTOMY,—NEPHROLITHOTOMY,—NEPHRECTOMY.

Dr. Charles Adams reported also the case of a man, aged 31 years, who four or five months ago contracted a specific urethritis, mild in character and neglected by the patient, who did not suspect its real nature. Four weeks before admission to the hospital the bladder became involved, the infection traveling rapidly through the ureter to the right kidney. This sudden invasion of the bladder was attributed by the man to a severe strain received in attempting to save himself from falling. Directly following this strain he felt acute pain in the bladder, along the course of the ureter and in the right loin, and there was an increase of the urethral discharge which became blood-stained. At the time of Dr. Adams' examination the man presented the characteristic signs of cystitis, with tenderness of the ureter and enlargement and tenderness of the kidney.

After preparation of the patient by a course of urinary antiseptics and cleansing of the field of operation, the kidney was exposed by Simon's vertical incision, opened through the convexity and from 4 to 6 ounces of pus were evacuated. The renal pelvis and ureter were thoroughly flushed with a one per cent. solution of iodine. Irrigation of the renal pelvis and ureter with iodine or silver nitrate solution was practised every day so long as the lumbar wound remained open. The gonococci which were present in numbers in the pus evacuated from the kidney and that from the bladder at the time of operation were not to be found after two weeks of this treatment. There was still a small amount of pus in the urine at the time of the patient's leaving the hospital, less than four weeks from operation. Directly after leaving hospital the man resumed his work, heavy lifting, etc., about a milk depot, but was not perfectly well, feeling occasionally some pain in the right loin. These attacks of pain after two years increased in frequency and severity, gradually shaping into attacks of renal colic. The urine became more purulent, occasionally bloody, and finally three years from the first operation the patient was compelled to give up work and was again admitted to hospital with tenderness in the right loin, pain extending down the ureter with retraction of the testis and pus and blood-corpuscles in the urine. A diagnosis of renal calculus was made and the kidney again opened and two calculi removed. The progress of the case was quite satisfactory for nearly a month; the wound had healed except for a small sinus left after removal of the drainage-tube, when it became suddenly apparent that blocking of the ureter had occurred. The urine which had been passing almost wholly by the ureter was discharged through the loin, the quantity per urethram being correspondingly lessened; so the wound was reopened and a small flake of calculus material removed from the ureteral opening with forceps. This relieved the condition, and shortly afterward he left hospital with a small sinus discharging a small amount of purulent urine and occasionally calculus material. This sinus persisted for nearly a year, the amount of discharge becoming greater and more annoying until the question of removing the kidney was considered.

During the intervals between operations he led a very active life of real hard work. Every effort had been made by his

attending physician by irrigation, and stimulating injections to stop the suppurative process, but to no avail, so in November, 1901, Dr. Adams removed the kidney.

The kidney presented a pyelitis with much hardening of its parenchyma, and embedded in the renal substance at its lower end was a collection of small calculi.

The resistance of the indurated kidney was such that this deposit could not be felt between the thumb and finger. The man made a prompt recovery from the final operation and has been in perfect health since that time.

Dr. Adams said that he was quite sure that the calculi found in the renal pelvis were formed between the first and second operations, but he was surprised at the complete and sudden disappearance of the gonococcus after its exceedingly active invasion of the bladder, ureter and kidney.

TELANGIECTATIC LIPOMA.

DR. D. A. K. STEELE presented a man 54 years of age who four years ago first noticed a round, semisolid tumor on the back to the right of the spine, about the third dorsal vertebra. At this time he suffered no inconvenience from the growth. On palpation there was no pain or signs of inflammation. From the time the growth was first observed, it had slightly increased in size until the end of the first year, when it was about the size of a large orange. This was three years ago. For the past three years the tumor had grown more rapidly, without causing any pain or inconvenience, until within the last three months, when it was noticed that the growth increased in size rapidly and began to cause some inconvenience from its size.

This growth was 21 inches in diameter, and 61 inches in circumference; its long diameter was 19½ inches and transverse diameter 10 inches. Careful examination would show a number of large venous trunks running over the surface of the tumor, some of them as large as the finger. The growth presented the characteristic feel of a fatty tumor. It was lobulated. Dr. Steele believed that it was not a simple lipoma, but one of those rare mixed forms of cavernous lipomas in which there was a mixture of the greatly enlarged blood-vessels, large lipomatous

lobules or masses typically circumscribed or incapsulated lobules; but running through the meshes of the lipomatous masses were greatly enlarged blood-vessels, the telangiectatic lipoma described by some authors. It was attached rather firmly above and had not from its weight passed down the back.

He had arranged to operate for the removal of this tumor, but thought the case was one of sufficient interest from a diagnostic point of view to exhibit before any operation.[1]

INGUINO-PROPERITONEAL HERNIA; INGUINO-INTERSTITIAL HERNIA.

Dr. Albert E. Halstead reported a case each of inguino-properitoneal, and of inguino-interstitial hernia, with critical remarks. For this paper see page 705.

TUBERCULAR PERITONITIS WITH GREAT DISTENTION OF GALL-BLADDER.

Dr. Bayard Holmes reported the following case: A man, 38 years of age, first came under his observation in September, 1905. He was married, and had three children, two living and in good health, the other child having died at the age of two of an acute infectious disease. His wife was several months pregnant and in good health.

He had always been a strong, healthy man until the fall of 1902, when he suffered from a severe and protracted pneumonia and pleurisy covering a period of about two months. Following this he was in good health until the fall of 1904, when he suffered severe pain in the right side of the abdomen, associated with considerable fever. He apparently recovered within a week or two. Later, however, in February, 1905, and again in May, 1905, he suffered similar attacks of pain and fever. About July 1, 1905, his finger was crushed in a machine. It healed very

[1] The tumor was exeised next day by lifting up the tumor-mass and transfixing its broad pedicle with a very long pedicle-needle threaded with a rubber ligature, which was tied around the two halves of the base, permitting a bloodless exeision of the tumor, whieh weighed eleven and one-half pounds, and on seetion proved to be a telangieetatie lipoma. The wound healed by primary union, and the patient returned to his home at the end of one week.

FIG. 1.—Telangiectatic lipoma of back.

FIG. 2.—Lipoma of back.

FIG. 3.—Lipoma of back.

slowly, and he was unable to return to work. At this time he began also to complain of loss of strength, anorexia, night sweats, and later of enlargement of the abdomen.

Dr. Bayard Holmes, Jr., found him with a temperature of 100, a pulse of 120. His skin and conjunctivæ presented a slight icteric hue, and he was slightly emaciated. The abdomen was considerably enlarged, and the presence of fluid in the abdomen was easily demonstrated. He complained of much pain in the region of the gall-bladder, discomfort after eating, looseness of the bowels, marked weakness, night sweats, and gradual increase in the size of the abdomen. A diagnosis was made of a tuberculous peritonitis, with a probable pus infection of the gall-bladder. He entered Wesley Hospital on September 25. His condition was practically the same, except that he was suffering very severely of pain in the right half of the abdomen, and the increase in size of the abdomen was considerable.

As soon as the anæsthetic was given the abdominal wall relaxed sufficiently to show the presence of a tumor the size of the fist in the region of the gall-bladder. An incision was therefore made on the border of the right rectus, which disclosed a large quantity of a serous, perfectly clear fluid free in the peritoneal cavity, and a gall-bladder so excessively enlarged and tense that it was believed to compress the portal vein and thus produce ascites. This corresponds also with the inability of the patient to take food. The incision was, however, sufficiently extended to introduce the hand, allow the fluid in the lower abdominal and pelvic cavity to escape, and when the abdominal walls were sufficiently relaxed to permit the introduction of the hand and arm, and the careful palpation of all the abdominal viscera. No evidence of tuberculous peritonitis was discovered anywhere, and no pathologic condition except the adhesions between the spleen and the abdominal wall, and the unusual condition of the omentum, which was rolled up in a mass on the lower border of the stomach. The gall-bladder was extirpated and the cystic duct found dilated so that three or four of the haustra contained dark calculi. The contents of the gall-bladder was a thick, mucopurulent fluid. The wall of the gall-bladder was about 3 mm. thick, and its surface was devoid of the natural

appearance of the gall-bladder. The gall-bladder was connected with the common duct by an excessively small cystic duct, which was found to be pervious after the gall-bladder was removed and tested with water under high pressure. The cystic duct was held in a six-inch artery forceps, which extended out of the corner of the wound. It was surrounded with a strip of iodoform gauze. The abdominal wound was closed and a large dressing applied. The quantity of serum which was removed from the abdomen during the operation must have been several pints. During the first two or three days there was an enormous quantity of drainage into the dressings, but no bile. The muscular portion of the abdominal wound closed perfectly, but an abscess appeared in the fat which required the skin incision to be opened. The artery forceps was removed on the third day and the gauze a little later. There was no discharge of bile. By the end of a week the abdomen began to be filled up again, and after making sure that there was no mistake the colon was separated from the anterior abdominal wound and a glass tube with numerous perforations passed into the lower peritoneal cavity through the original incision. This collapsed the abdomen and remained in place for several days. The abdomen never became distended again. The patient now became delirious, had a rapid pulse and low temperature and rapid respiration, averaging 101, 124 and 28. Much symptomatic medication and treatment was given, but the patient rapidly emaciated. The abdominal wound closed except for the skin, but occasionally a little bile would appear in the scar, which seemed to come from the injured surface of the liver. He died five weeks after admission, on the 31st of October.

A necropsy, performed by Professor Zeit, revealed the peritoneum everywhere covered with a recent miliary tuberculosis. There was an acute miliary tuberculosis of the left pleura, tuberculous peribronchitis and broncho pneumonia at the apices of both lungs; chronic fibrous pleurisy of the right lung, œdema of the lower lobes of both lungs; anthracosis of both lungs; acute splenic tumor and tuberculous perisplenitis; acute miliary tuberculosis of the spleen; chronic diffuse nephritis, parenchymatous type, large red kidney, with beginning secondary con-

traction; atrophic cirrhosis of the liver, tubereulous perihepatitis; acute miliary tubereulosis of the liver; nodular arteriosclerosis of the arch of the aorta and thoracic aorta, and fibrous endocarditis of the mitral valves; the gall-bladder absent, and no adhesions.

Dr. S. C. Plummer, relative to acute tubercular peritonitis following some injury, related the following case: A man received a very hard kick in the right iliac region of the abdomen; there supervened a tympanitic condition, which was more marked in the region of the contusion, but involved the whole abdomen. In view of the severity of the injury, and the tympanites following so rapidly, it seemed possible that there was a rupture of the intestine or some other severe intra-abdominal injury. So a laparotomy was done, but did not reveal any result of the recent injury. An omental adhesion was found which was probably the result of a previous appendicitis for which the patient had been operated upon, the appendix having been removed at the time. The man made an immediate recovery, although there seemed to be more paresis of the bowel than was ordinarily the case after an abdominal operation. About two months afterward he was brought to the hospital again and came into the service of Dr. Schroeder. At this time he had symptoms of acute intestinal obstruction. Dr. Schroeder performed a laparotomy and found very extensive tubercular peritonitis, from which the man shortly afterwards died. At the laparotomy immediately after the injury, he examined all the abdominal contents and did not find any sign whatever of tubercular peritonitis, so that it looked as if the injury or the first laparotomy was the etiological factor in the causation of this tubercular peritonitis.

Dr. Charles Davison said that Dr. Holmes' case reminded him of one he saw in the County Hospital a number of years ago. The patient was in the medical service of Dr. Billings, and was referred to the surgical side with a diagnosis of cholecystitis, with gall-stones, a diagnosis that none would question under any circumstances, inasmuch as the symptoms were as typical of a case of cholecystitis, with gall-stones, as they possibly could be. The patient had had typical attacks of gall-stone colic while in the hospital where they could watch him closely. His

abdomen was opened with the expectation of finding a distended gall-bladder, with stones in it. He could feel a tumor from the outside before operation. After the abdomen was opened, he found a collection of fluid below the liver, above the colon, to the outside of the gall-bladder, accompanied by slight adhesions, the fluid amounting to about ten ounces. The gall-bladder was not thickened, not distended, and contained nothing. The cavity which he opened and drained was studded with miliary tubercles to the naked eye, but he could find nothing of the kind anywhere else in the immediate neighborhood in the abdomen. The cavity was drained, and the patient got well, at least temporarily, so as to leave the hospital. He had not the general appearance of a tuberculous patient. No miliary tubercles were found in any other part of the body. The patient was in apparently good health.

DR. L. L. MCARTHUR referred to the careful résumé of the subject of tubercular peritonitis by Fürst in his monograph on Intestinal Tuberculosis. In this he demonstrates, by going over the work of a large number of pathologists of note, that tubercular peritonitis is often secondary to a primary tuberculosis of the intestines or mesenteric glands, and primary in the true sense. Not clinically primary, simply, but because of the passage of microörganisms through the even uninjured mucosa into the lymphatic glands, and from the lymphatic glands creating a peritoneal tuberculosis. We might hope in the future to operate far more early than in the past, perhaps before the period of ascites had developed. By the removal of the enlarged lymphatic glands that not infrequently could be clinically palpated, we might both cure the patient symptomatically and prevent those later stages which were so frequently hopeless. He, too, had furnished evidence which, to the unbiased mind, went to prove that occasionally primary peritoneal tuberculosis resulted from the swallowing of the bovine bacillus. Koch has lately turned so squarely against his former dictum as to say it never produces a human tuberculosis. Nevertheless, cases are now to be found in the literature, as quoted by Fürst. He thought if we had the opportunity to make earlier operative interference we could save many cases now lost.

Dr. Daniel N. Eisendrath said the case of Dr. Holmes brought up the subject of the acute onset of tubercular peritonitis. He had met with two cases of this kind, which he would relate. One of them was a young man whom he saw last spring on account of what appeared to be a tumor in the abdomen. The patient stated that two months previously he was taken sick at Indianapolis with a sharp pain in the right iliac region, and the physician who treated him for appendicitis told him there was no question but that he had appendicitis.

Dr. Eisendrath saw the patient two months later, when he had a prominence to the right side at about the level of the umbilicus, which fluctuated distinctly. He could replace it and palpate it bimanually. The tentative diagnosis was that the tumor had no connection between appendicitis, and it was thought that the case was one of hydronephrosis or mesenteric cyst. On opening the abdomen a large abscess cavity was found which extended upwards, which was limited strictly to the median line, extended downwards to the region of the appendix, a little above and backwards as far as the midaxillary line, upwards to the middle of the liver. The case turned out to be one of encapsulated tubercular peritonitis, which had begun very acutely with a sharp pain, as described.

In a second case, a woman had been taken sick rather suddenly, with a temperature ranging from 103° to 104°. She had all the symptoms of typhoid, and had been treated for six weeks. He thought the woman had tympanites. When Dr. Eisendrath saw her she had free fluid in the peritoneal cavity; also a high temperature. The case proved to be one of typical tubercular peritonitis. This form of acute peritonitis with sudden onset resembling typhoid fever is recognized and described in Osler's text-book.

Dr. A. J. Ochsner said that, in looking over the literature of tubercular peritonitis some three years ago for the purpose of preparing a paper, he found some very interesting facts which seemed not to have been generally put together. In the first place, it seemed from the literature that the early cases, which apparently appeared hopeless, and were found by accident, almost all were reported as having recovered. This may be accounted for

by the fact that if they did not recover the cases might not have been reported, or by the fact that nothing beyond an exploratory incision had been made. It seemed that for a number of years the cases that were reported were those in which surgeons had made wrong diagnosis. They had diagnosed a cyst, had opened the abdomen, had inserted a drainage tube, and told the friends that the case would be fatal, and it was a great surprise to them when these patients did not die. Presently the diagnosis was made beforehand and various surgeons began to operate for this condition, shortly after which there was a great change noticed in the results. This change came about in this way: As the operation became more thorough, the mortality materially increased, so that when surgeons began to do really a thorough operation, they could count on losing a large proportion of their cases; but if they took the same class of cases apparently and did nothing but an exploratory laparotomy the patients would recover. This went on still further until some foreign observers found that these patients when treated without operation recovered in about fifty per cent. of the cases. The diagnosis, however, was not as positive as when the patient was operated. Cases of tubercular peritonitis that were operated upon also recovered to the extent of about fifty per cent. About that time, he said, Professor Fenger published a paper in which he brought together all of the various facts and theories, and came to the conclusion that it was very doubtful whether operative treatment did harm or good in these cases. But in looking over his own experience, which at that time covered quite a large number of cases, and in taking all of the facts together, it seemed to Dr. Ochsner that he was entitled to draw this conclusion, that in case those patients were not operated on in whom a diagnosis of tuberculous peritonitis had been made, the probabilities of recovery were fifty per cent.; that among the remaining fifty per cent. of cases if they were not operated on there would be no recovery. If operated upon, there would still be fifty per cent. recover, and it seemed, from the observations of a number of surgeons and from experimental observations, that operation was especially desirable in cases which did not improve with internal and dietetic treatment. Operating a certain class of cases which

showed improvement with internal treatment, there was no greater percentage of recovery in this class than there was in cases which refused to improve without surgical treatment, so that it seemed, in treating all patients surgically from the beginning, there would be a recovery of only fifty per cent., and in treating those that would not improve under medical treatment there would still be a recovery of fifty per cent. Experimental work on animals by several observers showed that an early artificial tuberculosis did not improve with drainage to the extent that the cases did in which they allowed the tubercular peritonitis to become chronic. Those that were older recovered more rapidly with drainage than those that were operated early, and the explanation was that these animals developed a certain condition which enabled them to manufacture their own antitoxin out of the residue of their tuberculosis after drainage had been established.

In the speaker's own cases of traumatic tuberculosis, the same as in the case reported by Dr. Plummer, and in a number which he had found in the literature, the progress was very rapid as compared to cases of tubercular peritonitis in which there was no definite traumatic origin.

He had operated upon a patient for gastric ulcer, with pyloric obstruction. There was at this time no sign of tuberculosis of the peritoneum, but within six months the patient returned with symptoms of obstruction, and it seemed to him that something had gone wrong with the operation. But upon opening the abdomen it was found that these symptoms of obstruction were due to a very violent diffuse tuberculosis of the peritoneum, from which the patient had recovered under treatment.

The observations of Mayo in regard to tubercular peritonitis and tuberculosis of the intestines were of great value, because they had brought out clinically a fact that Dr. McArthur had mentioned, namely, infection through the intestine. The cases of patients that Dr. Mayo reported all came from a portion of the country where pulmonary tuberculosis is exceedingly rare. They practically all came from families in which there was no tuberculosis; they all came from families in which raw milk was used to a great extent, and these patients had nothing to indicate that they should have tuberculosis except the local conditions. Again,

practically all of them got well as soon as the abdomen was opened and drained, and they had remained well as long as they took sterilized milk afterwards. This, he believed, was the strongest anti-Koch demonstration that had been made.

DR. D. A. K. STEELE within the last two weeks had operated on two cases of tubercular peritonitis, one thirteen days ago, the other nine days ago. The patient upon whom he had operated thirteen days ago was a young Assyrian woman, who had many irregular, nodular tumors which could be felt in the abdomen. As he opened the abdomen he found the mesenteric glands were enlarged, together with some thirty or fifty others, which were the size, some of them, of a hazelnut, while others had attained the size of a hen's egg. It seemed rather formidable to shell out all of them, as the intestines were intensely injected. There was no evidence apparently of tubercular peritonitis, but he took it to be a tuberculosis of the mesenteric glands, involving all the glands in a profuse manner. He shelled out one of the glands for diagnostic purposes, closed the abdomen, and left the other glands in.

He asked Dr. McArthur whether in a case of this kind he would have removed all of the glands that were involved?

DR. L. L. MCARTHUR, in replying to the question of Dr. Steele, related a case in the person of the child of a surgeon of Boston, who had a sudden onset of the type of abdominal trouble that resembled in its characteristics very much an appendicitis. When he was operated upon for the supposed appendicitis, there were found innumerable enlarged lymphatic glands, such as Dr. Steele had described, in a child, nine years of age. These glands the operator continued to remove until the child was almost in a state of collapse. However, the child was perfectly well to-day, and to the speaker's mind had a typical case of tabes mesenterica, which, had it been allowed to go on, would have developed finally peritonitis, exhaustion, and ascites as a final result. Earlier operations both for intestinal tubercular ulceration, for tubercular appendicitis, and for tubercular gland infections, without observable lesion in the mucosa of the tract (bacilli have been artificially made to pass by food experiments into these glands, without an abrasion being demonstrable in the mucosa), would show such

changes in treatment as had occurred in the evolution of surgery of the appendix. The remarkable changes which occur in the peritoneum by the mere opening of the abdomen he saw in his own child, who suffered with an appendicitis, on which he thought a tubercular implantation had occurred from infected milk. Dr. Bevan did a laparotomy, finding such a general miliary tuberculosis of the peritoneum as one rarely saw. Scarcely an inch of the peritoneum was without distinct miliary tubercles. The peritoneum covering the intestines, covering the abdominal wall, covering the mesentery, was alike invaded. There were glandular masses as large as a fist in the mesentery. The entire omentum was caked, yet twelve months later, on opening the abdomen for the relief of the hypertrophied tuberculosis in the ileocæcal region, every trace of the miliary tubercles had disappeared, or was not to be detected. The lymphatic masses had almost disappeared in the mesentery, and the omentum had become more soft and normal-appearing. The opportunity was presented to see the influence of a simple abdominal opening; the total disappearance of the miliary tubercles.

Dr. A. E. Halstead said that he reported a case three years ago at a meeting of the American Medical Association of miliary tuberculosis of the abdomen that he had operated on. A diagnosis of acute appendicitis had been made. A large number of enlarged mesenteric glands were found, so many that it was not thought wise to remove them. Some of these glands were as large as a hen's egg, and the abdominal cavity was studded with tubercles. The patient finally recovered after about three months, and was sent to Colorado. Later, she developed a post-operative hernia. On returning to Chicago at the end of three years, she had apparently recovered from the tuberculosis. He operated on her for the hernia, inspected the abdominal cavity at the time, and was unable to find even a trace of the previous peritoneal tuberculosis, excepting that here and there was a small calcareous body representing a gland. She was absolutely free from all evidence of tuberculosis.

This case, and the one reported by Dr. McArthur, he thought, would indicate that operative treatment, as far as removing the glands is concerned, would not appear to be so essential. It

would seem to him to be an operation of great magnitude to remove all the glands, and if these patients recovered without such an operation by simply opening the abdomen and treating the case as one of tuberculosis, from a hygienic and dietetic point of view, it would seem that operation in these cases might not be really necessary.

DR. HOLMES, in closing the discussion, reiterated his belief that the big gall-bladder had produced in his case in the course of less than a week enormous ascites by pressure upon the portal vein, and he thought that the ascites was a predisposing factor toward the localization of the tuberculosis in the peritoneum, and that the peritoneal tuberculosis was only a part of a general miliary tuberculosis which had showed itself in the lung and in the capsule of the liver and genito-urinary organs. Again, he thought that the miliary tuberculosis was probably stirred up by the cholecystectomy and by the examination which he made at that time, which disclosed no adhesions in the abdominal cavity except over the spleen. It was possible that there was a perisplenitis of tuberculous origin, but he could not say so definitely. The cervical region of this gall-bladder contained a few nodules which he carefully examined microscopically, but did not prove to be tuberculous. The gall-bladder had a few times been discovered as tuberculous, but nearly always in cases of rather general tuberculous infection. (Sergent: Thesis, Paris, 1895.)

In regard to the removal of enlarged tuberculous lymph-glands in the mesentery of the intestines, he expressed himself as being of the same opinion as Dr. Halstead and some of the other speakers, that they should not be removed.

He remembered operating on a woman for obstruction of the bowels on whom Dr. Charles T. Parkes had made a diagnosis of an ovarian tumor many years before. This tumor had miraculously disappeared under Dowieism, which prevailed in that neighborhood at that time. This emergency laparotomy was performed in the patient's house with an assistant, the attending physician and the twin sister of the patient. When the abdominal wall was opened a number of hard, cheesy tuberculous glands presented themselves, which confirmed the diagnosis of tuberculous peritonitis of the dry variety. During an hour's

fruitless search for the obstruction six intestines were opened accidentally and closed again. The patient was in collapse, vomiting fecal matter and almost pulseless, when the wound was tamponaded with iodoform gauze and the abdominal incision, which reached nearly the whole length of the abdomen, closed. The patient was not expected to live, but showed herself in perfect health four or five months later.

He once operated upon a patient with tuberculous peritonitis on the diagnosis of appendicitis and found the peritoneum covered with tubercles and the tubes as large as the thumb. A few months later operating for hernia on the same patient no evidence of the former findings could be discovered.

He had observed the fact that the tuberculous peritoneum could withstand an enormous amount of traumatism with good effect. He had operated upon a little boy with a diagnosis of right hydronephrosis, and had discovered a general tuberculous peritonitis with an effusion into a peritoneal sac simulating an enormously distended right kidney. The abdomen was drained, and the patient did well for a few days. One morning the nurse informed him that the abdomen had broken open, and that the intestines were all in the dressing. This was discovered to be the case. They were carefully washed off and replaced, and the abdominal wound closed again. The patient made a prompt and perfect recovery.

He believed that tuberculosis confined to the peritoneum was amenable to surgical treatment. When the primary focus in the appendix, the tubes or other mucous membrane could be discovered, it should be removed. He had never attempted this himself, and always drained as little as possible through a small incision in order to diminish the chance of hernia.

PARTIAL GASTRECTOMY FOR CARCINOMA.

Dr. D. W. Graham exhibited a specimen taken from a man, 60 years of age, who gave a history of gradually failing health for six or nine months previous to operation. There was no obstruction of the pylorus apparently, but there was greatly disturbed nutrition and digestion, stasis, and occasional vomiting. Operation was undertaken, first, as an exploration. A tumor could be felt through the abdominal wall and it was found

to involve the stomach some litttle distanee away from the pylorus and implieated the anterior wall largely. There were no adhesions. The tumor was freely movable, and as there were no adhesions he considered it a good ease for partial gastrectomy.

There were several interesting features about the tumor itself. There was beginning eontraction to make the hour-glass form of the stomach. This contraction involved more particularly the lesser eurvature. The tumor had toadstool-like or eauliflower-like projections on the inner wall of the stomaeh. There was apparently normal mueous membrane between the various toadstool-like projections. The glands along the lesser eurvature were felt to be enlarged, as well as along the greater curvature.

The patient died on the fourth day after operation, from peritonitis. He thought leakage had taken place along the line of sutnre of the stump. The stomach was amputated at the pylorus, then a little more of the pylorus was removed, and the pylorus sutured in the usual way. A posterior gastroenterostomy was made. It was rather diffieult to get the line of junction right. He used clamps after Moynihan's method of procedure, and thought in so doing he disturbed the sutnre line, and that leakage followed the operation. However, when the tumor was removed, water was put in at two points, and the lower point tied, but no leakage was apparent. Nevertheless, he thought the point of leakage was due to distnrbanee of the suture line in making the gastroenterostomy and that it had been covered up by the exudate which took place before death.

The glands were all removed up to the root of the œsophagus, but there was an enlarged gland left (as shown in the speeimen) whieh was undoubtedly carcinomatous. The lesson to be drawn was that the surgeon should strip all fatty areolar tissue from the vessels and from the base of the œsophagus in gastreetomy. He thought, if there was any fault in eonnection with the operation, it was in getting the line of junction of the jejunum too close to the line of sutnre of the stomaeh.